

REPORT ON MACHINERY.

No. 7141

Received at London Office

THUR. 27 APR 1911

Date of writing Report 12 April 1911 When handed in at Local Office 19

Port of Rotterdam

No. in Survey held at Rotterdam

Date, First Survey 4 October 1910 Last Survey 4 April 1911

Reg. Book.

on the Steel Screw Steamer "Nord Holland"

(Number of Visits 11)

Tons Gross 1805.84

Net 521.88

Master H. de Boer

Built at Rotterdam

By whom built My. van Schuyt, Westburg, Friesland

When built 1911

Engines made at Rotterdam

By whom made

Do

when made 1911

Boilers made at

Do

By whom made

Do

when made 1911

Registered Horse Power 155

Owners Scheepvaart, Stenholen My.

Port belonging to Rotterdam

Nom. Horse Power as per Section 28 155

Is Refrigerating Machinery fitted for cargo purposes No

Is Electric Light fitted No

ENGINES, &c.—Description of Engines

Triple expansion

No. of Cylinders 3

No. of Cranks 3

Dia. of Cylinders 14 1/2 x 29 x 46

Length of Stroke 36

Revs. per minute 80

Dia. of Screw shaft

as per rule 10.5

Material of Steel

Is the screw shaft fitted with a continuous liner the whole length of the stern tube No liner

Is the after end of the liner made water tight

in the propeller boss No liner 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 45

Dia. of Tunnel shaft

as per rule 9.18

as fitted 9.18

Dia. of Crank shaft journals

as per rule 9.58

as fitted 9.58

Dia. of Crank pin 9.58

Size of Crank webs 8 1/2 x 4 1/2

Dia. of thrust shaft under

collars 9.78

Dia. of screw 11.5

Pitch of Screw 14.9

No. of Blades 4

State whether moveable No

Total surface 50.6

No. of Feed pumps 2

Diameter of ditto 3 1/4

Stroke 18

Can one be overhauled while the other is at work

Yes

No. of Bilge pumps 2

Diameter of ditto 3 1/2

Stroke 18

Can one be overhauled while the other is at work

Yes

No. of Donkey Engines 1

Size of Pumps 6 x 4 x 1

B. 10 x 9 x 10

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

In Engine Room 1 centrif. each wing 2 1/4" each, one 2 1/4" turntable

In Holds, &c. one 2 1/4" in each wing gutter in forehold

And one 2 1/4" in each wing gutter in afterhold

No. of Bilge Injections 1

Size 4 1/4

Connected to condensers, or to circulating pump

Is a separate Donkey Suction fitted in Engine room & size

Yes 2 1/4"

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

No

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

Yes and

on below, approx. 2. 29.3.11.

Are the Blow Off Cocks fitted with a spigot and brass covering plate

Yes

What pipes are carried through the bunkers

None

How are they protected

No

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

Dates of examination of completion of fitting of Sea Connections

28/2

of Stern Tube

28/2

Screw shaft and Propeller

28/2

Is the Screw Shaft Tunnel watertight

Yes

Is it fitted with a watertight door

Yes

worked from upper platform in engine room

Yes

BOILERS, &c.—(Letter for record

E)

Manufacturers of Steel

Pharmia Ltd for Glander Verrein Glander

Total Heating Surface of Boilers 2620

Is Forced Draft fitted

No

No. and Description of Boilers

Two single ended marine boilers

Working Pressure 180 lb.

Tested by hydraulic pressure to 270 lb.

Date of test 23.2.11.

No. of Certificate 500

Can each boiler be worked separately

Yes

Area of fire grate in each boiler

39.6

No. and Description of Safety Valves to

each boiler 2 spring loaded

Area of each valve 5.9

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

over 12"

Mean dia. of boilers 12.1"

Length 10.6 1/2"

Material of shell plates

Steel

Thickness 1 1/16"

Range of tensile strength 28-32 T.

Are the shell plates welded or flanged

No

Descrip. of riveting: cir. seams

lap 2 x 4 in

long. seams

double butt 5

Diameter of rivet holes in long. seams 1 1/16"

Pitch of rivets 4 1/8"

Lap of plates or width of butt straps 16"

Per centages of strength of longitudinal joint

rivets 87.5

plate 85.4

Working pressure of shell by rules 193 lb.

Size of manhole in shell 12 x 16"

No. and Description of Furnaces in each boiler 2 mrisons

Material Steel

Outside diameter 5' 10 1/2"

Length of plain part

top 2

Thickness of plates

crown 7/16"

Description of longitudinal joint

Welded

No. of strengthening rings

Working pressure of furnace by the rules 181 lb.

Combustion chamber plates: Material Steel

Thickness: Sides 7/8"

Back 5/8"

Top 5/8"

Bottom 1"

Pitch of stays to ditto: Sides 7/8 x 7/4

Back 7/8 x 7/4

Top 7/4 x 7/8

If stays are fitted with nuts or riveted heads

riveted

Working pressure by rules 193 lb.

End plates in steam space

Material of stays

Steel

Diameter at smallest part 1.488

Area supported by each stay 53.3

Working pressure by rules 193 lb.

Material of stays

Steel

Thickness 15/16"

Pitch of stays 15.5 x 16

How are stays secured

double nuts and rivets

Working pressure by rules 193 lb.

Material of Front plates at bottom

Steel

Diameter at smallest part 5.05

Area supported by each stay 248

Working pressure by rules 211

Material of Front plates at bottom

Steel

Thickness 13/16"

Material of Lower back plate

Steel

Thickness 3/4"

Greatest pitch of stays 14" x 7 1/4"

Working pressure of plate by rules 232 lb.

Diameter of tubes 3 1/4"

Pitch of tubes 4 1/2 x 4 1/2"

Material of tube plates

Steel

Thickness: Front 13/16"

Back 13/16"

Mean pitch of stays 8 1/4 x 15 1/8"

Pitch across wide water spaces 14" x 8 1/4"

Working pressures by rules 257 lb.

Girders to Chamber tops: Material Steel

thickness of girder at centre 8" x 2 x 3/4"

Length as per rule 2' 6"

Distance apart 4 3/4"

Number and pitch of stays in each 5 of 4 1/8"

Working pressure by rules 193 lb.

Superheater or Steam chest; how connected to boiler

Can the superheater be shut off and the boiler worked

separately

Diameter

Length

Thickness of shell plates

Material

Description of longitudinal joint

Diam. of rivet

holes

Pitch of rivets

Working pressure of shell by rules

Diameter of flue

Material of flue plates

Thickness

If stiffened with rings

Distance between rings

Working pressure by rules

End plates: Thickness

How stayed

Working pressure of end plates

Area of safety valves to superheater

Are they fitted with easing gear

Yes

Working pressure of end plates

Area of safety valves to superheater

Are they fitted with easing gear

Yes

Working pressure of end plates

Area of safety valves to superheater

Are they fitted with easing gear

Yes

Working pressure of end plates

Area of safety valves to superheater

Are they fitted with easing gear

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Area of safety valves to superheater

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Yes

Working pressure of end plates

Area of safety valves to superheater

Are they fitted with easing gear

Yes

VERTICAL DONKEY BOILER—

Manufacturers of Steel

No. *Wm.* Description

Made at

By whom made

When made

Where fixed

Working pressure

tested by hydraulic pressure to

Date of test

No. of Certificate

Fire grate area

Description of Safety

Valves

No. of Safety Valves

Area of each

Pressure to which they are adjusted

Date of adjustment

If fitted with easing gear

If steam from main boilers can enter the donkey boiler

Dia. of donkey boiler

Length

Material of shell plates

Thickness

Range of tensile strength

Descrip. of riveting long. seams

Dia. of rivet holes

Whether punched or drilled

Pitch of rivets

Lap of plating

Per centage of strength of joint

Rivets

Plates

Working pressure of shell by rules

Thickness of shell crown plates

Radius of do.

No. of stays to do.

Dia. of stays

Diameter of furnace Top

Bottom

Length of furnace

Thickness of furnace plates

Description of joint

Working pressure of furnace by rules

Thickness of furnace crown plates

Radius of do.

Stayed by

Diameter of uptake

Thickness of uptake plates

Thickness of water tubes

Dates of survey

SPARE GEAR.

State the articles supplied:

2 connecting rod top end bolts, nuts; 2 connecting bottom end bolts, nuts; 2 main beam bolts; 1 set of coupling bolts; 1 set of feed, lift, circulator, air pump valves, guards; 1 quantity of various bolts; 1 set of various pins; 1 open steamshaft; 1 propeller; 1 set bottom, top end bottom braces; 1 condenser ring; 1 set of pin ring bolts; 1 roller spindle; 1 eccentric rod, air, circulator pump rod; 15 condenser tubes; 50 foreruns; 1 big pump plunger; 1 set fire bars; 1 set of check valves.

The foregoing is a correct description,

Maatschappij voor Scheeps- en Werktuigbouw

"FIJENOORD"

D. Roll

Manufacturer.

Dates

During progress of

of Survey

while

building

board vessel

Total No. of visits

Dec. 4. 18. Nov. 21. Jan. 14. 22. Feb. 9. 14. 18. 23. 24. 28.

10. 20. 24. 27. March. 4. April.

16

Is the approved plan of main boiler forwarded herewith? *yes*

pump, shaft, discharging, other plans.

" " " donkey " " "

Dates of Examination of principal parts—Cylinders

Slides

Covers

Pistons

Rods

Connecting rods

Crank shaft

Thrust shaft

Tunnel shafts

Screw shaft

Propeller

Stern tube

Steam pipes tested

Engine and boiler seatings

Engines holding down bolts

Completion of pumping arrangements

Boilers fixed

Engines tried under steam

Main boiler safety valves adjusted

Thickness of adjusting washers

9. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50.

Material of Crank shaft

Identification Mark on Do.

Material of Thrust shaft

Identification Mark on Do.

Material of Tunnel shafts

Identification Marks on Do.

Material of Screw shafts

Identification Marks on Do.

Material of Steam Pipes

Test pressure

General Remarks

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

The machinery and boiler, having been fitted in accordance with the approved plan and the Secretary's letters, matured under steam, and the machinery having worked satisfactorily under steam. We are of opinion that the vessel is eligible to be recorded in the Society's Register book with L.M.C. 3. 11.

It is submitted that this vessel is eligible for THE RECORD + L.M.C. 4. 11.

J.W.D. 28/4/11

The amount of Entry Fee

£ 24

Special

£ 279

Donkey Boiler Fee

£

Travelling Expenses (if any)

£ 9

When applied for,

24/4

19. 11.

When received,

6/57

19. 11.

W.F.D. W. Ollefe

T. W. Bernacki

Engineer Surveyor to Lloyd's Register of British & Foreign Shipping.

Committee's Minute

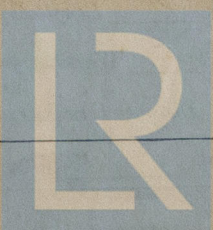
28 APR 1911

Assigned

Thine 4. 11

MACHINERY CERTIFICATE

WRITTEN.



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Lloyd's Register Foundation

Certificate (if required) to be sent to the Surveyors Rotterdam.

(The Surveyors are requested not to write on or below the space for Committee's Minute.)