

REPORT ON MACHINERY.

No. 11431

Received at London Office

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Date of writing Report 20th 10 20 When handed in at Local Office 10

Port of

Date, First Survey 5th Dec 1919

Last Survey 3rd Dec 1920

1920

o. in Survey held at

Flushing

Reg. Book.

on the Steel screw Steamer **HILVERSUM**

(Number of Visits 18)

Tons { Gross 372.10
Net 2253.50

Master **R. H. Steffen**

Built at **Capelle & Yssel**

By whom built **St. Vuyt & Zonen**

When built 1910

Engines made at **Flushing**

By whom made **Hon Mr 'De Schelde'**

when made 1910

Boilers made at **Flushing**

By whom made **Hon Mr 'De Schelde'**

when made 1910

Registered Horse Power

Owners **Hoon Mr 'Oostzee'**

Port belonging to **Amsterdam**

nom. Horse Power as per Section 28 398

Is Refrigerating Machinery fitted for cargo purposes No

Is Electric Light fitted Yes

ENGINES, &c.—Description of Engines

Vertical Triple Expansion

No. of Cylinders 3

No. of Cranks 3

Dia. of Cylinders 25" X 40" X 67"

Length of Stroke 45"

Revs. per minute 65

Dia. of Screw shaft 14 1/2"

Material of screw shaft 1st steel

Is the screw shaft fitted with a continuous liner the whole length of the stern tube **No** **Notum Redwall** the after end of the liner made water tight

Is the propeller boss 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 5'-0"

Dia. of Tunnel shaft 12 1/2" Dia. of Crank shaft journals 13 1/2" Dia. of Crank pin 13 1/2" Size of Crank webs 19x19" Dia. of thrust shaft under

collars 15 1/4" Dia. of screw 14 1/2" Pitch of Screw 17-9" No. of Blades 4 State whether moveable No Total surface 90 sq ft

No. of Feed pumps 2 Diameter of ditto 3 1/2" Stroke 14" Can one be overhauled while the other is at work Yes

No. of Bilge pumps 2 Diameter of ditto 4 Stroke 14" Can one be overhauled while the other is at work Yes

No. of Donkey Engines 2 Sizes of Pumps 8x6x18, 12x8x10, 10x12x10, 3 1/2 x 4 x 6 No. and size of Suctions connected to both Bilge and Donkey pumps

In Engine Room 3 1/2" x 18" 2 1/2" x 18" 2 1/2" x 18" In Holds, &c. 2 1/2" x 18" 2 1/2" x 18" 2 1/2" x 18"

No. of Bilge Injections 1 sizes 7" Connected to condenser to circulating pump Is a separate Donkey Suction fitted in Engine room & size 2 1/2"

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 None How are they protected

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 Main deck

OILERS, &c.—(Letter for record S) Manufacturers of Steel **Dalzell Steel & Iron works Motherwell Glasgow**

Total Heating Surface of Boilers 5490 sq ft Is Forced Draft fitted Yes No. and Description of Boilers 3 Horizontal Marine boilers

Working Pressure 100 lbs Tested by hydraulic pressure to 1250 lbs Date of test 6.4.20 No. of Certificate 696

Can each boiler be worked separately Yes Area of fire grate in each boiler 48 sq ft No. and Description of Safety Valves to

each boiler Two spring loaded Area of each valve 4.9 sq ft Pressure to which they are adjusted 180 lbs Are they fitted with easing gear Yes

Smallest distance between boilers or uptakes and bunkers or woodwork over 16" Mean dia. of boilers 13 1/4" Length 10'6" Material of shell plates 1st steel

Thickness 1 1/2" Range of tensile strength 20-52 tons Are the shell plates welded or flanged No Descrip. of riveting: cir. seams lap & x riv

ong. seams double butt Diameter of rivet holes in long. seams 1 1/4" Pitch of rivets 0 5/16" Lap of plates or width of butt straps 19"

Per centages of strength of longitudinal joint rivets 95% plate 85% Working pressure of shell by rules 109 lbs Size of manhole in shell 12" x 16"

Size of compensating ring 0 1/2" x 1" No. and Description of Furnaces in each boiler 2 Marmon Material 1st steel (Outside diameter 4'4")

Length of plain part top 10" bottom 10" Thickness of plates crown 1 1/2" bottom 1 1/2" Description of longitudinal joint 1 bolted No. of strengthening rings 2

Working pressure of furnace by the rules 193 lbs Combustion chamber plates: Material 1st steel Thickness: Sides 7/8" Back 7/8" Top 7/8" Bottom 1"

Pitch of stays to ditto: Sides 7 1/2" x 1 1/2" Back 7 1/2" x 1 1/2" Top 8" x 8" If stays are fitted with nuts or riveted heads rivets over 1/2" in diam

Material of stays steel Area at smallest part 147 sq in Area supported by each stay 54" Working pressure by rules 184 lbs End plates in steam space:

Material 1st steel Thickness 7/8" x 7/8" Pitch of stays 20" x 18" How are stays secured secured with nuts Working pressure by rules 193 lbs Material of stays 1st steel

Area at smallest part 6.49 sq ft Area supported by each stay 360 sq in Working pressure by rules 193 lbs Material of Front plates at bottom 1st steel

Thickness 1" Material of Lower back plate 1st steel Thickness 1 1/2" Greatest pitch of stays 13 1/2" x 1 1/2" Working pressure of plate by rules 191 lbs

Diameter of tubes 3 1/2" Pitch of tubes 4 1/2" x 4 1/2" Material of tube plates 1st steel Thickness: Front 1" Back 1 1/2" Mean pitch of stays 14 1/2" x 9 1/2"

Pitch across wide water spaces 14" Working pressures by rules 186 lbs Girders to Chamber tops: Material 1st steel Depth and

thickness of girder at centre 0 1/2" x 2 1/2" Length as per rule 2'8" Distance apart 8" Number and pitch of stays in each 3'2" 8"

Working pressure by rules 187 lbs 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

UPERHEATER. Type None 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

Diameter of Safety Valve Pressure to which each is adjusted Is Easing Gear fitted

Lloyd's Register
Foundation