

Rpt. 4.

REPORT ON MACHINERY.

No. 10957

Received at London Office

Date of writing Report 25 Sept 1919 When handed in at Local Office

Port of Rotterdam

No. in Survey held at Geertuindenberg
Reg. Book.Date, First Survey 19 July 1918 Last Survey 26 Sept 1919
(Number of Visits 10)

on the Hull Screw Steamer "BEGONIA"

Tons } Gross 433
Net

Master

Built at Hardinneweld

By whom built W. Scheepman & de Elberwede When built 1919

Engines made at Geertuindenberg

By whom made Mach. fab. Th. Schipper & van Dongen when made 1919

Boilers made at Geertuindenberg

By whom made " " " " when made

Registered Horse Power

134

Owners Frans Boyesson Esq

Port belonging to Helmingborg

Nom. Horse Power as per Section 28

Is Refrigerating Machinery fitted for cargo purposes No

Is Electric Light fitted No

ENGINES, &c.—Description of Engines Vertical triple expansion No. of Cylinders 3 No. of Cranks 3

Dia. of Cylinders $15\frac{7}{8} \times 15\frac{5}{8} \times 41\frac{1}{8}$ Length of Stroke $21\frac{1}{8}$ Revs. per minute 90 Dia. of Screw shaft $8\frac{1}{2}$ Material of screw shaft $SM\ Steel$ 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 tightIn 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 partBetween the bearings in the stern tube, is the space charged with a plastic material insoluble in water and non-corrosive *Yes* If twoLiners are fitted, is the shaft lapped or protected between the liners *Yes* Length of stern bush 38"Dia. of Tunnel shaft $8\frac{1}{2}$ Dia. of Crank shaft journals $8\frac{1}{2}$ Dia. of Crank pin $8\frac{1}{2}$ Size of Crank webs $5\frac{1}{2} \times 4\frac{1}{2}$ Dia. of thrust shaft underCollars $8\frac{1}{2}$ Dia. of screw 10" Pitch of Screw $11\frac{1}{2}$ No. of Blades 4 State whether moveable *No* Total surface 38 sqNo. of Feed pumps 2 Diameter of ditto $2\frac{1}{2}$ Stroke 14" Can one be overhauled while the other is at work *Yes*No. of Bilge pumps 2 Diameter of ditto $2\frac{1}{2}$ Stroke 14" Can one be overhauled while the other is at work *Yes*No. of Donkey Engines 2 Sizes of Pumps $6 \times 4 \times 6$ No. and size of Suctions connected to both Bilge and Donkey pumpsIn Engine Room 1 to 2" In Holds, &c. 2 to 2" *Yes*No. of Bilge Injections 1 sizes $3\frac{1}{2}$ Connected *Yes* to circulating pump Is a separate Donkey Suction fitted in Engine room & size *Yes* to 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 *None*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 *Bilge pipes for hold* How are they protected *by timberboards*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 bilge *Yes*Is the Screw Shaft Tunnel watertight *No Tunnel* Is it fitted with a watertight door *Yes* worked from *Yes*BOILERS, &c.—(Letter for record *S*) Manufacturers of Steel *Thyssen & Co* *Mueckem-Buhr*Total Heating Surface of Boilers 2590 sq Is Forced Draft fitted *No* No. and Description of Boilers *2 single ended Mann boiler*

Working Pressure 12 Atmospheres Tested by hydraulic pressure to 300 lbs Date of test 23-3-19 No. of Certificate 663

Can each boiler be worked separately *Yes* Area of fire grate in each boiler 35 sq No. and Description of Safety Valves toEach boiler *2 spring loaded* Area of each valve 350" Pressure to which they are adjusted 146 lbs Are they fitted with easing gear *Yes*Smallest distance between boilers or uptakes and bunkers or woodwork *over 18"* Mean dia. of boilers 10'6" Length 10'1" Material of shell plates *SM Steel*Thickness $\frac{7}{8}$ " Range of tensile strength 20-32 tons Are the shell plates welded or flanged *No* Descrip. of riveting: cir. seams *Lap & riv*Long. seams *Double butt riveted* Diameter of rivet holes in long. seams $1\frac{1}{8}$ " Pitch of rivets $4\frac{1}{2}$ " Lap of plates or width of butt straps $16\frac{1}{2}$ "

Percentages of strength of longitudinal joint rivets 100% Working pressure of shell by rules 140 lbs Size of manhole in shell 12'x16"

Size of compensating ring $6\frac{1}{2} \times 8\frac{1}{2}$ No. and Description of Furnaces in each boiler *2 Mannson patent* Material *SM Steel* Outside diameter 39"Length of plain part *top* Thickness of plates *bottom* $3\frac{1}{2}$ " Description of longitudinal joint *Welded* No. of strengthening rings *None*Working pressure of furnace by the rules 191 lbs Combustion chamber plates: Material *SM Steel* Thickness: Sides $1\frac{1}{2}$ " Back $1\frac{1}{2}$ " Top $1\frac{1}{2}$ " Bottom $2\frac{1}{2}$ "Pitch of stays to ditto: Sides $3 \times 6\frac{1}{4}$ Back $6\frac{1}{2} \times 6\frac{1}{4}$ Top $3 \times 6\frac{1}{2}$ If stays are fitted with nuts or riveted heads *Yes* Working pressure by rules 213 lbsMaterial of stays *SM Steel* Area at smallest part 1090" Area supported by each stay $45\frac{1}{4}$ " Working pressure by rules 100 lbs End plates in steam space:Material *SM Steel* Thickness $\frac{7}{8}$ " Pitch of stays $18\frac{1}{2} \times 10\frac{1}{4}$ How are stays secured *Double nuts* Working pressure by rules 341 lbs Material of stays *SM Steel*Area at smallest part 1090" Area supported by each stay 105 lbs Working pressure by rules 100 lbs Material of Front plates at bottom *SM Steel*Thickness $\frac{7}{8}$ " Material of Lower back plate *SM Steel* Thickness $\frac{7}{8}$ " Greatest pitch of stays $11\frac{1}{2}$ " Working pressure of plate by rules 266 lbsDiameter of tubes $3\frac{1}{2}$ " Pitch of tubes $4\frac{5}{8}$ " Material of tube plates *SM Steel* Thickness: Front $\frac{7}{8}$ " Back $\frac{7}{8}$ " Mean pitch of stays $10\frac{7}{8}$ "Pitch across wide water spaces 15" Working pressures by rules 380 lbs Girders to Chamber tops: Material *SM Steel* Depth andThickness of girder at centre $6\frac{1}{4} \times 11 \times \frac{5}{8}$ Length as per rule $23\frac{5}{8}$ " Distance apart $6\frac{5}{8}$ " Number and pitch of stays in each *1 to 1"*Working pressure by rules 184 lbs Steam dome: description of joint to shell *Yes* % of strength of joint *Yes*Diameter *Yes* Thickness of shell plates *Yes* Material *Yes* Description of longitudinal joint *Yes* Diam. of rivet holes *Yes*Pitch of rivets *Yes* Working pressure of shell by rules *Yes* Crown plates *Yes* Thickness *Yes* How stayed *Yes*SUPERHEATER. Type *Yes* Date of Approval of Plan *Yes* Tested by Hydraulic Pressure to *Yes*Date of Test *Yes* Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler *Yes*Diameter of Safety Valve *Yes* Pressure to which each is adjusted *Yes* Is Easing Gear fitted *Yes*

IS A DONKEY BOILER FITTED? *No*

If so, is a report now forwarded? *—*

SPARE GEAR. State the articles supplied:— *2 bottom end bolts and nuts, 2 top end bolts and nuts, 2 main bearing bolts, one set of coupling bolts, one set of belge and feed pump valves, one set of piston springs for each cylinder, 12 condenser tubes and ferrules, one propeller, one set of check valves, a quantity of assorted bolts and iron of various sizes.* ✓

The foregoing is a correct description,

N.V. Machinefabriek

Vh. SCHIPPER & VAN DONGEN

Manufacturer.

Dates of Survey while building { During progress of work in shops -- *1918. June 19 July 19 Aug 16 Oct 10 Dec 9. 1919 Jan 15 Feb 7. March 18. May 18 June 2-12 July 8-28*
During erection on board vessel -- *Sept 12. 16-20-24-26*
Total No. of visits *20*

Is the approved plan of main boiler forwarded herewith *Yes*

" " " donkey " " " ✓

Dates of Examination of principal parts—Cylinders *2-6-19* Slides *2-6-19* Covers *2-6-19* Pistons *2-6-19* Rods *2-1-19*
Connecting rods *19-6-18* Crank shaft *21-4-18* Thrust shaft *21-4-18* Tunnel shafts *—* Screw shaft *21-4-18* Propeller *19-6-18*
Stern tube *15-1-19* Steam pipes tested *12-9-19* Engine and boiler seatings *20-5-19* Engines holding down bolts *16-9-19*
Completion of pumping arrangements *16-9-19* Boilers fixed *16-9-19* Engines tried under steam *20-9-19*
Completion of fitting sea connections *20-5-19* Stern tube *18-5-19* Screw shaft and propeller *20-5-19*
Main boiler safety valves adjusted *20-9-19* Thickness of adjusting washers *5 1/2 inch 19 1/2 - 19 1/2 inch*
Test boiler *18-10-19*

Material of Crank shaft *Identified* Identification Mark on Do. *Lloyds 35.4.18* Material of Thrust shaft *Steel* Identification Mark on Do. *Lloyds 35.4.18*

Material of Tunnel shafts *✓* Identification Marks on Do. *—* Material of Screw shafts *Steel* Identification Marks on Do. *Lloyds 35.4.18*

Material of Steam Pipes *Steel* Test pressure *520 lb*

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 *No* If so, state name of vessel *—*

General Remarks (State quality of workmanship, opinions as to class, &c. *The machinery being made in accordance with the approved plans, Secretary's letters and the Society's Rules, workmanship good, material tested as required, and the whole being found in a good working condition during a trial trip, I am of opinion that this vessel is eligible to be recorded in the Society's Register Book with*

✠ LMC 9-19

It is submitted that this vessel is eligible for THE RECORD. + LMC. 9.19

RCM. 8/10/19 *APR*

The amount of Entry Fee ... *£ 24.00* When applied for, *24* 1919
Special ... *£ 24.20* When received, *24* 1919
Donkey Boiler Fee ... *£*
Travelling Expenses (if any) *£ 22.00*

Committee's Minute *FRI. 10 OCT. 1919*

Assigned *+ LMC 9.19*

MASTERY CERTIFICATE
WRITTEN



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