

REPORT ON MACHINERY.

No. 10222

Received at London Office

Port of Rotterdam Date, First Survey 7 Dec 1915 Last Survey 10 Oct 1916

of writing Report 14 Oct 1916 When handed in at Local Office

in Survey held at Schiedam Date, First Survey 7 Dec 1915 Last Survey 10 Oct 1916
 Book. on the Paul Screw S/S. SCHIELAND Tons { Gross 2249
 Net 1201.6

Water J. Knop Built at Schiedam By whom built Weyf Gusto (Ct. P. Mulder) When built 1916

Mines made at Schiedam By whom made Weyf Gusto (Ct. P. Mulder) when made 1916

Wires made at Graaf Buren By whom made Chaudronnier et T. P. Mulder when made 1916

Registered Horse Power Owners Schepvaart Maatschappij Port belonging to Rotterdam

m. Horse Power as per Section 28 210 Is Refrigerating Machinery fitted for cargo purposes No Is Electric Light fitted No

GINES, &c.—Description of Engines Vertical Triple Expansion No. of Cylinders 3 No. of Cranks 5

Length of Stroke 39 Revs. per minute 80 Dia. of Screw shaft 12 1/2 Material of SM steel

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

the propeller boss No If the liner is in more than one length are the joints burned No 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 No If two

ers are fitted, is the shaft lapped or protected between the liners Protected with packing glands Length of stern bush 4' 2"

a. of Tunnel shaft 10 3/16 Dia. of Crank shaft journals 11 Dia. of Crank pin 11 1/2 Size of Crank webs 10 3/8 x 7 1/2 Dia. of thrust shaft under

bars 11 Dia. of screw 14 3/8 Pitch of Screw 14 3/8 No. of Blades 4 State whether moveable No Total surface 68 7/8

of Feed pumps 2 Diameter of ditto 3 1/8 Stroke 19 1/2 Can one be overhauled while the other is at work Yes

of Bilge pumps 2 Diameter of ditto 5 1/8 Stroke 19 1/2 Can one be overhauled while the other is at work Yes

of Donkey Engines 3 Sizes of Pumps 7 1/2 x 4 1/2 x 6 General No. and size of Suctions connected to both Bilge and Donkey pumps

Engine Room 1 x 3 1/2 " E.R. 2 x 3 1/2 " Hold at No. 1, 2 x 3 " Hold at No. 2 In Holds, &c. 2 x 3 " Hold at No. 1, 2 x 3 " Hold at No. 2

of Bilge Injections 1 sizes 5 1/2 Connected to condenser, or to circulating pump No Is a separate Donkey Suction fitted in Engine room & size Yes, 1 x 3 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 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 Both

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

That pipes are carried through the bunkers 2 Bilge pipes to Hold No. 1 How are they protected Bored in

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

the Screw Shaft Tunnel watertight No tunnel As it fitted with a watertight door No worked from No

ILERS, &c.—(Letter for record 8) Manufacturers of Steel Thyssen & Stahlwerke & A. R. Stahl

total Heating Surface of Boilers 3616 1/2 Is Forced Draft fitted No No. and Description of Boilers 2 Main Single ended boilers

Working Pressure 180 lbs Tested by hydraulic pressure to 360 lbs Date of test 31.8.16 No. of Certificate at G. P. Bureau

Can each boiler be worked separately Yes Area of fire grate in each boiler 54 1/2 No. and Description of Safety Valves to

each boiler 2 Spring loaded Area of each valve 7 3/4 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 2 ft. 2 in. Mean dia. of boilers 13' 9" Length 14' 4" Material of shell plates SM steel

Thickness 1 1/8 Range of tensile strength 28-32 Tons Are the shell plates welded or flanged Welded Descrip. of riveting: cir. seams Double butt

ing. seams 3 x riveted Diameter of rivet holes in long. seams 1 1/16 Pitch of rivets 7 7/8 Lap of plates or width of butt straps 18 1/8

Percentage of strength of longitudinal joint 90 Working pressure of shell by rules 181 lbs Size of manhole in shell 12" x 16"

Size of compensating ring 9 1/2 x 1 No. and Description of Furnaces in each boiler 3 Main Material SM steel Outside diameter 3' 9 1/4"

Length of plain part top 19 1/2 Thickness of plates bottom 19 1/2 Description of longitudinal joint Welded No. of strengthening rings 1

Working pressure of furnace by the rules 185 Combustion chamber plates: Material SM steel Thickness: Sides 7/8 Back 5/8 Top 7/8 Bottom 7/8

Pitch of stays to ditto: Sides 7 x 7 Back 7 x 7 1/2 Top 7 x 7 1/2 If stays are fitted with nuts or riveted heads Riveted Working pressure by rules 184

Material of stays Steel Area at smallest part 1.277 1/2 Area supported by each stay 49 1/2 Working pressure by rules 190 lbs End plates in steam space:

Material Steel Thickness 7/8 Pitch of stays 20 x 15 1/4 How are stays secured and nut Working pressure by rules 238 Material of stays Steel

Area at smallest part 406 1/2 Area supported by each stay 315 1/2 Working pressure by rules 231 Material of Front plates at bottom Steel

Thickness 1 Material of Lower back plate Steel Thickness 7/8 Greatest pitch of stays 13 3/8 Working pressure of plate by rules approx

Diameter of tubes 3 3/4 Pitch of tubes 4 1/4 Material of tube plates Steel Thickness: Front 1 Back 2 5/32 Mean pitch of stays 8 1/2

Pitch across wide water spaces 14 1/8 Working pressures by rules 182 lbs Girders to Chamber tops: Material Steel Depth and

Thickness of girder at centre 2 x 14 x 8 1/4 Length as per rule 30 1/4 Distance apart 7 7/8 Number and pitch of stays in each 3 x 7

Working pressure by rules 190 lbs Steam dome: description of joint to shell None % of strength of joint No

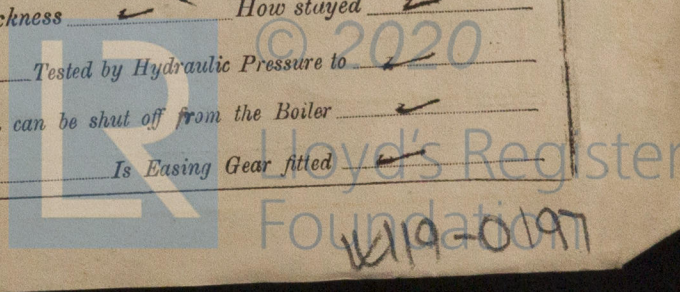
Diameter No Thickness of shell plates No Material No Description of longitudinal joint No Diam. of rivet holes No

Pitch of rivets No Working pressure of shell by rules No Crown plates No Thickness No How stayed No

UPERHEATER. Type No Date of Approval of Plan No Tested by Hydraulic Pressure to No

Date of Test No Is a Safety Valve fitted to each Section of the Superheater which can be shut off from the Boiler Yes

Diameter of Safety Valve No Pressure to which each is adjusted No Is Easing Gear fitted No



IS A DONKEY BOILER FITTED? No ✓

If so, is a report now forwarded? ✓

SPARE GEAR. State the articles supplied:— 2 Connecting rod top end bolts and nuts, 2 bottom end bolts and nuts, 2 main bearing bolts and nuts, 1 set of coupling bolts, 1 set of feed and bilge pump valves, 1 set of piston rings for each cylinder, a quantity of assorted bolts and nuts, iron of various sizes, 1 propeller and shaft, 1 set of top and bottom end braces, 1 eccentric strap complete, 1 air pump and circulating pump rod, 1 feed pump ram, 2 sets of check valves, 6 junk ring bolts, 12 condenser tubes, 25 furnaces, 12 boiler tubes, 1 H.P. piston valve complete.

WERE GUSTO

Firma A. F. SMULDERS
The foregoing is a correct description,
p. proc. v/d. Raad van Beheer

De Directeur:

De Administrateur:

Le Directeur: De Administrateur:
R. Monif. Hame

Manufacturer.

Dates of Survey while building	During progress of work in shops - -	Dec 7-17. Jan 2-6. Feb 1-11 March 1-4 April 22, May 9-10-16-23-24-30-31. June 10 17-19-22.
	During erection on board vessel - - -	July 12-17-27-31. Aug 18-24. Sept 6. Oct 3-6-10-
	Total No. of visits	26.

Is the approved plan of main boiler forwarded herewith ☒ Yes ☐ No

Is the approved plan of main boiler forwarded herewith *and with*

43492

" " donkey " " "

ods

Dates of Examination of principal parts—Cylinders $\frac{26}{1}$ - $\frac{24}{5}$ Slides $\frac{26}{1}$ - $\frac{24}{5}$ Covers $\frac{26}{1}$ - $\frac{24}{5}$ Pistons $\frac{26}{1}$ - $\frac{24}{5}$ Rods $\frac{24}{1}$ - $\frac{12}{1}$

Connecting rods $1\frac{1}{2}$ - $\frac{10}{16}$ - Crank shaft ~~14~~ Thrust shaft in Tunnel shafts ~~14~~ Screen shaft ~~14~~ Propeller $1\frac{1}{2}$ - $\frac{10}{16}$

Stomach tube 14/2 23/2 1/2 Stomach minus content 13/2 1/2 F 13/2 1/2

Stern tube 12-16 Steam pipes tested 12-16 Engine and boiler seatings 16-16 Engines holding down bolts 12-16

Completion of pumping arrangements 24-8-16 Boilers fixed 12/7-16 Engines tried under steam 10-10-16

Completion of fitting sea connections 16-5-16 Stern tube 23-5-16 Screw shaft and propeller 23-5-16

Main boiler safety valves adjusted 24-8-16

B.V. 4-56
Material of Cranb shaft C // Identification Mark on De AD # 16 Material of TL ...
10342

Material of Thrust shaft S. H. Thrust Identification mark on Do. A.B. 5-10 Material of Thrust shaft S. H. Thrust Identification mark on Do. E.H. 1-10

Material of Tunnel shafts Steel Identification Marks on Do. 10381 Material of Screw shafts Steel Identification Marks on Do. K.H. 1-16
K.H. 2-16 Spare. " Steel 10324

Material of Steam Pipes Steel Revised 6.24 120 psi Test pressure 600 lb square K.H. 1916.

Is an installation fitted for burning oil fuel *No* *Ship back SD Steel Lee City 4/7/24* Is the flash point of the oil to be used over 150°F. *✓*

In this machine are duplicates of _____

The machinery and boiler having been constructed and fitted in accordance with the approved plans and Secretary's letter (Boiler made at Grace Berleur and upon arrival at this district examined and tested as per Secretary's letter No 4-16/1, material tested as required, workmanship good and the whole having worked satisfactorily during a trial trip I am of opinion that the vessel is eligible to be recorded in the Register Book with record of L.M.C 10-16

As no brass condensor tubes were available, steel tubes 1/8" thick have been fitted in the condenser. This is the owner's intention to fit brass tubes as soon as possible.

It is mentioned that
this vessel is eligible for
THE RECORD. AL NC 10 16.

The amount of Entry Fee	...	£	24.00	When applied for,	
Special	...	£	366.00	17/10	1916
Donkey Boiler Fee	...	£	:	When received,	
Travelling Expenses (if any)	£	7.00		25/10/16	

Engineer Surveyor to Lloyd's Register of Shipping

Committee's Minute TUE. 24 OCT. 1916

Assigned

24061. 1916
Lm 6 10.16

Subject.

LIBRARY CERTIFICATE
WHITTEN.

Lloyd's Register
Foundation